New U.S. National Stage of PCT/FR03/003656

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Amendments to the Claims:

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The following listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1.-20. (Cancelled)

- 21. (New) Standard micro-component for calibrating and standardizing fluorescence measuring instruments comprising a substrate whereon there is arranged at least one thin layer comprising fluorescent components, said micro-component comprising at least first and second fluorescence levels, micro-component wherein the first and second fluorescence levels are respectively defined by a non-exposed part and by at least one exposed zone of said thin layer, the second fluorescence level being lower than the first fluorescence level.
- 22. (New) Standard micro-component according to claim 21, wherein the thin layer comprises at least one opening defining a third fluorescence level lower than the first and second fluorescence levels.
- 23. (New) Standard micro-component according to claim 22, wherein the third fluorescence level corresponds to the fluorescence level of the substrate.
- 24. (New) Standard micro-component according to claim 22, wherein the third fluorescence level is at least 10 times lower than the first fluorescence level.
- 25. (New) Standard micro-component according to claim 24, wherein the third fluorescence level is at least 100 times lower than the first fluorescence level.

- 26. (New) Standard micro-component according to claim 21, wherein the thin layer is formed by a fluorescent material.
- 27. (New) Standard micro-component according to claim 21, wherein the thin layer comprises a plurality of exposed zones so as to define a plurality of different fluorescence levels.
- 28. (New) Standard micro-component according to claim 21, wherein the thin layer is formed by a photosensitive resin.
- 29. (New) Standard micro-component according to claim 21, wherein the substrate is formed by a material selected from the group consisting of silicon, synthetic silica, quartz, plastics and glasses.
- 30. (New) Standard micro-component according to claim 21, wherein at least a part of the thin layer is covered by a protective thin layer.
- 31. (New) Standard micro-component according to claim 30, wherein the protective thin layer is transparent to optical reading signals received and sent back by the thin layer.
- 32. (New) Standard micro-component according to claim 30, wherein the micro-component comprises a plurality of stacked protective thin layers.

- 33. (New) Standard micro-component according to claim 30, wherein the material forming the protective thin layer is selected from the group consisting of the following materials: TiO₂, Ta₂O₅, HfO₂, ZrO₂, MgO, SiO₂, Si₃N₄, MgF₂, YF₃, Al₂O₃, ZrO₄Ti, Y₂O₃, diamond and oxynitrides.
- 34. (New) Standard micro-component according to claim 30, wherein the thickness of the protective thin layer is calculated using the following formula: $n.e = k\lambda/4$, in which n is the refractive index of the material composing the protective thin layer for a wavelength λ of the optical reading signal received by the thin layer, e is the optical thickness of the protective thin layer and k is an odd integer.
- 35. (New) Standard micro-component according to claim 21, wherein the standard micro-component comprises a plurality of stacked thin layers so as to define a plurality of fluorescence levels.
- 36. (New) Standard micro-component according to claim 35, wherein the openings of at least two thin layers are superposed.
- 37. (New) Biochip comprising, on a single substrate, at least one biological sensor and at least one standard micro-component according to claim 21.
- 38. (New) Fabrication process of a standard micro-component according to claim 21, comprising deposition on a substrate of at least one thin layer comprising fluorescent components, process consisting in exposing at least one zone of the thin layer so that first and

second fluorescence levels are respectively defined by the non-exposed part and by the exposed zone of the thin layer.

- 39. (New) Fabrication process of a standard micro-component according to claim 38, comprising deposition, on the substrate, of a plurality of stacked thin layers.
- 40. (New) Fabrication process of a standard micro-component according to claim 38, comprising deposition of a protective thin layer after exposure.